

## Analyzing Graphs and Tables

**I**n this investigation you will continue to use tables, graphs, and descriptions to compare information and make decisions. Using tables, graphs, and words to represent relationships is an important part of algebra.

Sidney, Celia, Liz, Malcolm, and Theo continue making plans for Ocean Bike Tours. Many of these plans involve questions about money.

*How much will it cost to operate the tours?*

*How much should customers pay?*

*Will the company make a profit?*

The five tour operators decide to do some research.



### Getting Ready for Problem 2.1

- With your classmates, make a list of things the tour operators must provide for their customers. Estimate the cost of each item per customer.
- Estimate how much customers would be willing to pay for the three-day tour.
- Based on your estimates, will the partners earn a profit?

## 2.1 Renting Bicycles

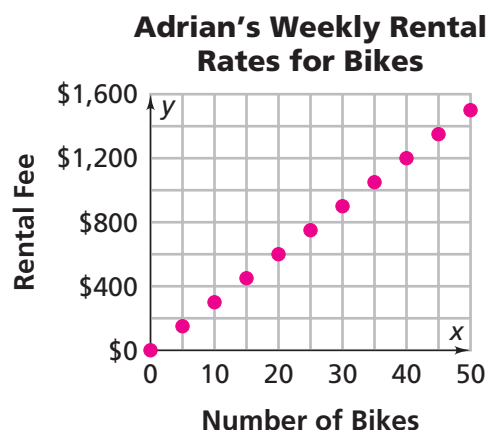
The tour operators decide to rent bicycles for their customers. They get information from two bike shops.

Rocky's Cycle Center sends a table of weekly rental fees for bikes.

**Rocky's Weekly Rental Rates for Bikes**

Number of Bikes	5	10	15	20	25	30	35	40	45	50
Rental Fee	\$400	\$535	\$655	\$770	\$875	\$975	\$1,070	\$1,140	\$1,180	\$1,200

Adrian's Bike Shop sends a graph of their weekly rental fees. Because the rental fee depends on the number of bikes, they put the number of bikes on the  $x$ -axis.



### Problem 2.1 Analyzing a Table and a Graph

- Which bike shop should Ocean Bike Tours use? Explain.
- Suppose you make a graph from the table for Rocky's Cycle Center. Would it make sense to connect the points? Explain.
- How much do you think each company charges to rent 32 bikes?
- What patterns do you find in the table and in the graph?
  - Based on the patterns you found in part (1), how can you predict values that are not included in the table or graph?
- Describe a way to find the costs for renting any number of bikes from Adrian's Bike Shop.
  - Describe a way to find the costs for renting any number of bikes from Rocky's Cycle Center.

**ACE** Homework starts on page 35.